

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000042**Date Inspected:** 06-Nov-2006**Project Name:** SAS Superstructure**OSM Arrival Time:** 830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Liu Liu**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** N/A**Summary of Items Observed:**

This Office of Structural Materials Quality Assurance Inspector observed welding and quality control functions during procedure qualification testing at the ZPMC facility in Shanghai, Republic of China today.

Item	Description	WBS	Dwg No.	Status
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This Quality Assurance Inspector observed the Quality Control Inspector, Mr. Liu Liu witnessing the running of the flux-cored arc welding procedure qualification test HP2006105 in the shop at ZPMC. The test was being run to Paragraph 5.12 at for maximum heat input in the vertical welding position (3G). The welders were Lei Li Chao and Zhang Xing Jin who were using Hyundai, Supercored 71, and 1.4 millimeter diameter wire. Problems occurred once again during the running of the root and intermediate passes due to power fluctuation. After lunch, the welding of this procedure qualification plate was restarted after changing out the welding cable liner, contact tip and control cord. Problems were still encountered with the arc sputtering. Lei Li Chao tried welding without the use of the bug-o-system and a steady welding arc was then maintainable. Present for the welding was Craig A. Knops of Fluor who is the Senior Corporate Welding Engineer and Mr. Chen Bin, Quality Control Manager for ZPMC who were on hand to witness the problems being experienced by the welders. Problems continued so the bug-o-system currently in use was replaced by a similar unit. The welding came to an end when during the process of putting in the third pass the travel speed was 32% off from the average speed causing the welding to be out of tolerances.

WELDING INSPECTION REPORT

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Summary of Conversations:

A discussion was held with Liu Liu concerning the power fluctuations. Mr. Liu stated that they were going to suspend welding of the flux core welding to look into the cause of the electrical power problems.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By: Berger, Bruce

Quality Assurance Inspector

Reviewed By: Lowry, Patrick

QA Reviewer